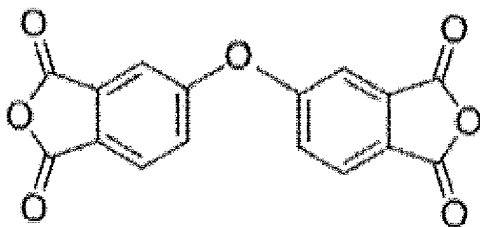


REMARKS

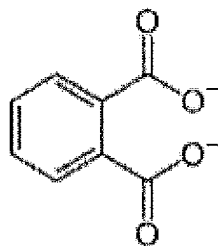
As a preliminary matter, Applicants thank the Examiner for noting that the initial IDS incorrectly cited the reference disclosed in the specification at ¶ [0004]. Applicants will submit an additional IDS, if needed. Additionally, the Office Action noted that the Abstract was too long. Applicants submit that the presently amended Abstract is 150 words.

Currently, claims 1-25 and 32-37 are pending in the present application. Claims 9-11, 15-25, 33, 34, and 36 are presently withdrawn. All of the presently withdrawn claims contain the limitations of independent claim 1. As such, Applicants respectfully request rejoinder of the withdrawn claims upon allowance of claim 1.

In the Office Action, claims 13, 14, and 32 were rejected under 35 U.S.C. § 112, second paragraph. Regarding claim 13, the Examiner indicates that it is not seen how dianhydrides or diimides of tetracarboxylic acids could result in the $-X-CO-(R_2-CO-)_m-X-$ structure. Applicants note that the claim calls for the particular structure within the multiblock to derive from chain-linking agents such as dianhydrides or diimides of tetracarboxylic acids. For instance, Applicants disclose a dianhydride of a tetracarboxylic acid of oxybis(phthalic anhydride) (see claim 17). Oxybis(phthalic anhydride) has the following structure:



One skilled in the art appreciates that, for instance, the structure can be reacted with,



for example, water to yield divalent radicals. Such radicals correspond to the $-X-CO-(R_2-CO-)_m-X-$ structure.¹

Regarding claim 14, the Examiner notes that the claim cannot depend from itself. Applicants have amended claim 14 to remedy this typographical error. Additionally, the Examiner indicates that claim 14 could not have the $-(R_2-CO-)-$ structure be present in the claimed $-X-CO-(R_2-CO-)_m-X-$ if derived from a diester of carbonic acid such as diphenylcarbonate. Again, Applicants note that the claims merely require the structure to derive from one of the listed compounds. Furthermore, Applicants note that claim 14 depends from claim 1 which allows for $m=0$ (i.e. corresponding to a structure that does not include the $-(R_2-CO-)-$ structure).

Regarding claim 32, the Office Action notes that claim 32 failed to list any step and could not constitute a "method." Applicants have amended claim 32 to remedy this deficiency.

Applicants have amended claim 1 to include the limitations of previous claim 28. In the Office Action, claim 28 was rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 4,535,127 to Matsuzaki in view of JP60170652. As obviating Applicants claimed multiblock of formula I,

¹ Applicants note that the above example is merely one example for illustrative purposes and is does not limit the claim scope to this particular structure.

-A-O-R¹-O-CO-(R²-CO-)_m-X-D-X-(CO-R²)_m-CO-X-, the Office Action points to Example 46 of Matsuzaki that discloses a polyacetal starting material of trioxane and ethylene glycol formal and a thermoplastic elastomer "formed from 4,4'-dicyclohexylmethane diisocyanate, ethylene glycol, and poly(ethylene adipate)." Based on this disclosure, the Examiner concludes:

Matsuzaki exemplifies (#46) the production of a block polymer having a blocks of copolyoxymethylene from trioxane and ethyleneglycol formal (ie dioxolane) and a hydroxyl/carboxyl terminated polyesterurethane block from dicyclohexylmethanediisocyanate + ethyleneglycol + polyethyleneadipate. The starting polyesterurethane block polymer must have one of the two structure as follows:

(I)

HO-CH₂CH₂-O(CO)(CH₂)₄(CO)O- polyesterurethane-O(CO)(CH₂)₄(CO)OH

(II)

HO-CH₂CH₂-O(CO)NH-polyesterurethane-O(CO)(CH₂)₄(CO)OH

Upon reaction with the trioxane and ethyleneglycol formal the following results for (I):

(I)

copolyoxymethylene-OCH₂CH₂-O(CO)(CH₂)₄(CO)O-polyesterurethane-O(CO)(CH₂)₄(CO)O-copolyoxymethylene

This fits applicant's formula with "A"= copolyoxymethylene

R1= -CH₂CH₂-

R2= -(CH₂)₄-

X=oxygen

m=1

D=polyesterurethane

Similarly for (II):

Copolyoxymethylene-OCH₂CH₂-O(CO)NH- polyesterurethane-O(CO)(CH₂)₄(CO)O-copolyoxymethylene

This fits applicant's formula with "A"= copolyoxymethylene

R1= -CH₂CH₂-

m=0 at left side of molecule

m=1 at right side of molecule

R2= -(CH₂)₄-

X=nitrogen at left side of molecule

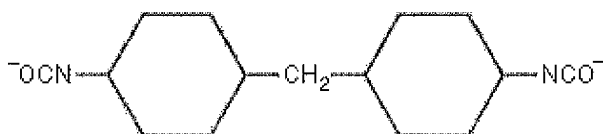
X= oxygen at right side of molecule

D=polyesterurethane

Importantly, none of the Examiner's assertions are anywhere to be found in Matsuzaki.

Applicants are unsure how the disclosure of Matsuzaki that a thermoplastic "formed from 4,4'-dicyclohexylmethane diisocyanate, ethylene glycol, and poly(ethylene adipate)" must inherently meet either formula I or formula II denoted by the Examiner.

Regarding Formula I, it appears the Examiner has merely somehow formed a block copolymer of structure: ethylene glycol-ethylene adipate-dicyclohexylmethane diisocyanate-ethylene adipate. Somehow, the dicyclohexylmethane diisocyanate portion is either polymerized to become a "polyesterurethane" or the Examiner considers a single monomer of a divalent radical of dicyclohexylmethane diisocyanate to be a "polyesterurethane." Either way, Applicants respectfully submit that the Examiner's logic is flawed. First, Matsuzaki does not include any disclosure of how the thermoplastic portion is formed, just that it is "formed from" the three compounds. At Col. 3, line 66 – col. 4, line 17, Matsuzaki generally discloses that the elastomer "formed from 4,4'-dicyclohexylmethane diisocyanate, ethylene glycol, and poly(ethylene adipate)" is a "polyurethane type" elastomer (i.e. the entire structure formed from the three components is a polyurethane type elastomer). Second, while again Applicants note that it is not disclosed how the thermoplastic is formed, even if it is formed as a A-B-C-B block copolymer of the structure (with apparently only single monomers each) as the Examiner concludes, the "polyesterurethane" unit (i.e. a unit of dicyclohexylmethane diisocyanate divalent radical) would have the structure of:



One skilled in the art readily appreciates that such a divalent radical does not derive from any of Applicants' claimed polymers for component D.

Similar arguments can be made against the Examiner's Formula II which appears to be somehow formed of a block copolymer structure of: ethylene glycol-an amine group apparently deriving from one of the isocyanate groups of dicyclohexylmethane diisocyanate-the rest of the dicyclohexylmethane diisocyanate radical-ethylene adipate. First, like above, it appears the Examiner has somehow concluded that (a portion of) the dicyclohexylmethane diisocyanate is somehow "polyesterurethane." Second, somehow the (CO) group on one end of the dicyclohexylmethane diisocyanate is removed leaving just the amine group. Third, and most importantly, there is no disclosure whatsoever in Matsuzaki that the compound "formed from" the three compounds would inherently and necessarily have to form one of the Examiner's two structures including single monomer units in the form of an A-B-C-B block copolymer (formula I) or something similar to an A-C-B block copolymer (formula II) which is what is needed in order to come close to Applicants' claimed structure. Again, it is important to note that even if all of the Examiner's assertions were true, the C block (deriving from a dicyclohexylmethane diisocyanate compound) does not derive from any of the polymers disclosed and claimed by Applicants.

JP '652 does not remedy the above deficiencies of Matsuzaki.

Additionally, Applicants have added new claim 37 and respectfully submit that none of the cited references disclose or suggests its limitations.

As such, it is believed that the present application is in complete condition for allowance and favorable action is respectfully requested. Examiner Buttner is invited

and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Amendment.

Please charge any fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully submitted,

DORITY & MANNING, P.A.



Ryan P. Harris
Registration No. 58,662
P.O. Box 1449
Greenville, SC 29602-1449
Phone: (864) 271-1592
Facsimile: (864) 233-7342

Date: 11/30/09